THE TENNESSEE FARMER.

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BY THOMAS EMMERSON, AT $1 PER ANNUM IN ADVANCE—OR $1 50 AT THE END OF THE YEAR

To the Friends of Agricultural Improvement.

We have again to repeat our urgent solicitations to our friends, and to the friends to the great cause whose interest we seek to promote, that they will favor us with such communications on agricultural subjects, as they may think would be useful. We know that there is in the state, a mass of agricultural knowledge, now confined to a few, the general dissemination of which, could not fail to be productive of much benefit to society. Would many of those who possess it, reflect a little on the extent of the good they have it in their power to confer on their country, we are sure, that they would not only feel it to be a duty which they owe to that country, but one which they would be disposed to perform with alacrity and delight, to afford us the opportunity, through the medium of the Farmer, of communicating to their fellow citizens, those results of their reflections, observation and experience, the general knowledge of which, while its diffusion could by no possibility, operate to their prejudice, would highly tend to the general improvement of agriculture and the consequent prosperity of their country. The increasing circulation of the Farmer in the west and southwest induces us to wish to present to our readers in those quarters at an early period, such information in relation to the culture of cotton and tobacco, as may be most useful to them. True, we may be able to extract much useful matter in relation to these subjects, from the valuable publications received from Maryland, Virginia, South Carolina and Georgia, but it should be recollected, that the difference in soil and climate, often renders it expedient, sometimes necessary, to adopt different modes of cultivating the same plant. May we not therefore hope, that some of our highly intelligent planters in west Tennessee and Alabama, will take the trouble to furnish us with a detailed account of those modes of cultivating, curing and preparing for market, those valuable staples, which have been found by experience to be best adapted to their respective sections of the country. By so doing, they will not only confer a favor on us, but benefit in no small degree their neighbors and countrymen, who, no doubt, will be disposed to return the favor, by the communication of other knowledge, by which they in their turn will be enabled to profit.

We are aware, that a diffidence in furnishing any thing for the press, has a powerful, though a very improper influence, in inducing many to withhold from the public the communication of that knowledge, the dissemination of which would be highly useful. But when it is considered that perspicuity and accuracy, not elegance of diction, or a display of literary and scientific attainments, are all that are generally requisite in agricultural communications, and when it is moreover considered, that if desired, the name of the author will never be disclosed, such a consideration can have no weight whatever on any reasonable man, in inducing him to withhold any aid he may have it in his power to render, for the improvement of agriculture, the benefit of his neighbors and countrymen, and the consequent prosperity and welfare of his country. Knowing as we do, that the utility of agricultural papers, in a great degree consists, in the general dissemination amongst the whole community, of that knowledge which must otherwise be confined to a few, and being desirous, that the Farmer should perform its full share, in the production of that agricultural improvement, which all admit to be so desirable, we again entreat the friends of agriculture, to give to us that very important aid, in the accomplishment of this great object, which, at so little expense, either of time or labor, they have it completely in their power to afford.

The culture of silk is becoming an object of such deep and general interest throughout the United States, and particularly in the west, as to demand, that a portion of our paper shall be devoted to that interesting subject. While we shall

endeavor to glean from the northern publications all that information in relation to the cultivation of the mulberry tree, the rearing the silk worm, and the raising and manufacturing of silk, which shall have a tendency to promote the interest of those in the west, who are, or may be engaged in the business, it would afford us great pleasure, to make the Farmer, a register of the results of the experiments now making, or which may hereafter be made, in the rearing the mulberry or the raising or manufacture of silk. Concise, accurate, and perspicuous statements of these results, or of any inventions or improvements, which may be made in the business, will be thankfully received and duly attended to. Our correspondents on these subjects, will, however, recollect, that our limited space, which must be proportioned amongst so many subjects of deep interest to various classes of the agricultural community, renders it highly important, that in all communications, brevity be consulted, to the utmost extent which accuracy and perspicuity will permit. But, though this shall be done to the greatest practicable extent, it will nevertheless sometimes happen, that a larger portion of one number will necessarily be devoted to some one subject than those not interested in it may think it entitled to. In such cases, we trust our patrons will reflect, that where so many interests are to be attended to, an equal division of our space in each number amongst them all, in proportion to their relative importance, is manifestly impossible, without sacrificing the interests of all. It can only therefore be required, that the space, not of each number, but of each volume, shall be impartially appropriated to the different subjects treated of, in proportion to their importance. This task we shall endeavor to perform, with that impartiality, which an equal regard to the interests of all who are engaged in agriculture may dictate.

BITTER ROT.

The destructive effect of this disease on the fruit of our orchards, has for many years past, been a subject of general complaint. The respectable source from which the following recipe has been obtained, induces us to advise our readers to make a trial of its efficacy. The gentleman to whom we are indebted for it, and whose respectability and veracity may be confidently relied on, used the prescription repeatedly, and with uniform success, for the destruction of Caterpillars; last year he tried it for the same purpose on some trees, the apples on which had before been rendered useless by the Bitter Rot; and he had the gratification of finding it not only effectual for the purpose designed, the destruction of the Caterpillars, but that the fruit of the succeeding summer was perfectly free from the disease to which it had so long been subject, and by which its value had been entirely destroyed. A single experiment it is true, is insufficient to establish the general efficacy of the remedy, but the success of it is amply sufficient to induce its repeittion; and we hope many of our readers will do so next Spring, and apprise us of the results.

Recipe to destroy Caterpillars, and to cure the Bitter Rot.—In April or May bore a hole with a half inch augur, about half way through the tree, put into it a tea-spoonful of the flower of sulphur, plug the hole up tight with a wooden pin. The tree will not be injured, and the Caterpillars will be destroyed and the Bitter Rot cured.

We insert with pleasure, the following communication on the subject of Silk, transmitted to us by the author, and we trust, it will have the effect of stimulating our farmers to active exertions in raising the mulberry tree, and making the other preparations, necessary to a full and fair experiment for ascertaining the value of the Silk Culture, in which he appears to take so deep an interest.

MILL'S POINT, HICKMAN COUNTY, KY. *August 19th*, 1835.

FRIEND EMMERSON:

It is with pleasure I acknowledge the receipt of your five numbers of the Tennessee Farmer.

The first article which caught my eye was an Essay on the Culture of Silk and a letter from Judge Spencer to his friend, Samuel Hopkins. I am indeed highly delighted to observe that the culture of Silk is attracting the attention of the sagacious mechanic, the talented, enterprising projector and the public spirited philosopher. I have ever admired the ingenuity and delighted in the society of the industrious insect which with so much adroitness and perseverance converts the

mulberry leaf into the rich and golden cocoon.—Curiosity lead me three years since to visit the Shaker Village on White-water, State of Ohio, and in May I first saw the operations of this peaceful and productive little creature. Under the control and care of one of those innocent daughters of religion and love, I saw to my utter astonishment, the daily conversion of the raw material taken from the forest, into the glossy and beautiful fabric, in which Queens are apparelled and Princess are robed. Notwithstanding the evidence of the profit in rearing the worm in the town of Mansfield and county of Windham, was so palpable and convincing to the world, yet we find our countrymen, notwithstanding all their passion for novelty and burning desire for gain, almost insensible to the advantages of this branch of labor, until a few years back when it began to receive an impulse from the generous efforts of our government and the exertions of a few talented and discriminating men. I recollect when a boy, of noticing some standard white mulberry trees in the garden of an amiable Doctor Hall, in Pomfret, Windham county, Con; he had introduced them in order to gratify the curiosity of his accomplished and interesting wife & two beautiful industrious daughters who at that early period were directing their efforts to raise the worms, reel the silk and convert it into sewing silk—this they accomplished. Little did I then think that this branch of industry would constitute one of the most delightful pursuits of my life and that I should live to see mechanic, speculator—planter and philosopher all animated in giving force and success to this novel employment. The government of the United States have discharged the high and honorable duty imposed on them in printing, under the supervision and control of the Secretary of State, a treatise on the culture of the mulberry tree and the rearing of the silk worm, and afterwards distributing 30,000 copies gratis throughout the Union for the reading and benefit of our citizens. The government have explored the region of native wealth which is open to all, and it is now the interest and duty of the citizen to avail himself of the resources which nature and art offer to enrich himself and benefit his country. Ever since I was so interested in this innocent pursuit I have been adding to my knowledge—collecting essays on these subjects—experiments made in different states by planters—by settled silk raisers—by widow's and agricultural societies. In addition to this fund of information I have devoted my time and feeble talents to the practical branches; and at this moment I sensibly feel and do say, that in no possible manner can the resources of talents—ingenuity and wealth be more profitably expended than in preparing extensive orchards and rearing up buildings for the operations and residence of this wonderful insect and never failing friend to man. Experiments from all quarters are pouring in upon us to rouse energy into action. Inventions are multiplying to facilitate the hitherto arduous and difficult operation of reeling—machines are going up—factories are raising and farmers and their rosy cheeked girls are parting with their scruples and inviting the little stranger to take up their abode with them.

In a letter recently received from that active, generous and highly esteemed fellow citizen, Nicholas Longworth, of Cincinnati, he observes—"I am entirely satisfied that the culture of silk will spread itself with great rapidity over our beloved land, and that the labors of cultivating the various kinds of mulberry tree and of rearing the worm and reeling the silk will be much abridged, by the active, the energetic and intelligent faculties of citizens of the United States."—How completely has one part of this prediction been verified in the late inventions of the ingenious Gay and Moseley.

When such men as Homergue—Du Ponceau—Mease, of Philadelphia—Longworth of Cincinnati and Gideon B. Smith of Baltimore, appear to be active in its promotion, what can be expected but that the mighty tide will turn and the silk interest will share largely in attention and participate proudly in the triumphs which American zeal and skill will effect in our land.

In a letter received not long since from Gideon Smith, he urges it most imperatively on me, "not to neglect immediate attention to the rearing of an orchard of the Multis Multicaulis, as those whose foresight enable them to make favorable preparations will unquestionably share most largely in the benefits of its introduction for food for the silk worms. Example has a force which precept has not, and experiments which have been made and are now making in every section of the Union, will give an impetus to silk raising which will soon be amalgamated with our other all absorbing passions for wealth and profit.

Depend upon it Friend Emmerson, ten years will place these interests on a level with those of cotton, rice and grain. Our countrymen possess unbounded energies—strong, nervous, almost insensible of depression; the native sons of our soil accomplish any thing within the reach of any ingenuity or intellect given by our Creator to man. There is no branch of business (throwing aside all views of profit,) carried on in society, which is attended with so many charms and so few toils and exposure as the rearing of silk worms. Except the gathering of the leaves every part of the process is conducted under cover from heat and rain—hence delicate females, boys and aged people can work to as much advantage as the healthy and the robust. The peaceable disposition evinced by these sagacious little

insects is not the least of their virtues. They seem incapable of imitation but every one pursues his labors with an equanimity and zeal even surpassing the industrious bee. The Shakers have raised silk and manufactured it for twenty years. Their system is by no means expensive or complicated. The boys gather the leaves and the sisters conduct the worm through every stage of his life. Their manner of killing the chrysalis is three days exposure to the warm sun in June.

No body of people is so well calculated to conduct this business as Shakers. The purity and innocence of their lives—their calmness and industry—their uniform cleanliness and economy and their insulated life, free from the turmoils and distractions of the world, fit them in an eminent manner for the prosecution of these innocent labors. It will take several years for the skill and enterprize of our countrymen to raise the balance to the hitherto enormous sum which has been expended for imported silks. The market never can be glutted--competition never can weaken the sinews of activity and ambition—but the more general the cultivation the better the market to give encouragement to manufactures.

I trust, friend Emmerson, that you will not suffer your efforts to relax in rousing up the attention of your countrymen to their dearest interests—I mean the interest of wealth and independence in circumstances. The elevation of young convicts from depraved and prodigal steps to the benign and heavenly walks of religion, has a powerful effect in convincing mankind of error and the delusions of a wicked life, and it is just so with the reports of experimentalists and projectors in this important branch of national industry. Success with one, wins the notice of another, and thus the fire of ambition extends from region to region and soon operations assume an interesting and formidable shape, both to the advantage and honor of the adventurous silk raiser.

I have made several cursory remarks on this my favorite pursuit, now permit me friend Emmerson to detail to you a few facts, within actual observation.

Mr. Daniel Rowe, an ingenious and enterprising citizen of Dayton, Ohio, about three years since, occupied three large rooms in the city with worms. He had never before that season paid any attention to them or the culture of the mulberry tree. He hired a man and a boy to go to the forest, two miles from Dayton and gather leaves—two girls were employed five weeks in feeding them and preserving the cocoons. At the end of that time he gathered (if I recollect right) eight barrels of cocoons. He was indebted wholly to the woods for their food—about the same time he set out five acres of trees, some white and some red mulberry from the woods—two years after this I received information in a letter from Nicholas Longworth of Cincinnati, that a factory was established there (in Dayton,) and that vests and handkerchiefs were manufactured with success and much to his honor and to the delight of the citizens. The five acres of mulberry, according to all concurrent statements, particularly according to the one made in April 1835 by Judge Spencer, ought to yield him 1500 dollars clear gain.

We must recollect in this concern that the trees are improving every year—the same buildings and furniture will answer 20 years to come which does now. Success attend the efforts of that very amiable, talented and ambitious citizen. Another fact which I have made public in a lecture which I gave on the subject of the silk culture. Two log cabins at the Shaker village in Ohio and a garden house, was appropriated as nurseries for the worms. The leaves were brought half a mile by boys and the worms fed and cleaned by his two girls of 13 years old, superintended by a young and beautiful shakeress, somewhat acquainted with the business; in five weeks the cocoons were exposed to the sun and reeled into raw silk and sold to Gen. Daniel Gano of Cincinnati, I think, for $97 50—he gave the Shakers for sewing silk $10 per lb.

The committee appointed by Congress, at the instance of Mr. Van Renselaer, to report on a manual for the raising of silk in the United States, say, that from one acre planted with mulberry trees 500 lb of raw silk can be obtained, this at a minimum price of $5,00 per lb. would be 2500 dollars. The more I write and think on this subject the greater is my astonishment that my countrymen do not take hold on the business with Herculean energy and go ahead. Create first the food, an abundance of the raw materials will be the consequence and then the hands to manufacture will soon be found.

It deeply regards every farmers individual interest to exert himself to secure a share in the culture of silk, of which no other crop we have, can be compared to it for richness and excellence, and in a sense of public duty to the powerful community of which we are members, the exertion ought to be great, as it would make a great addition to our resources. The cotton manufactories are dependent on the south for their raw materials; silk would be our own and nations and individuals cannot be too careful to secure within themselves means for their prosperity and greatness. But I have digressed a little.

The Valentine silk company, Providence, R. Island, have 30,000 trees on their farm—each tree yielding on an average, one half pound silk worth at least $5 00 per lb., making their income worth $75,000 per annum— powerful machinery

is in operation to weave the material and elegant stuffs have already been produced.

The Eaton Register says—Mrs. Alfred of New Cum, Preble County Ohio, has the present season, with the aid of one small girl and two boys about twelve years old, fed and attended about 50,000 silk worms with the leaves of the common wild mulberry tree—from her labors of six weeks she realized $225, 00 from the sale of the raw material—the raw material when put into skeins would bring $400,00. The silk she manufactured is equal in elegance and richness to any foreign silk; and yet this female accomplishes all her labors without the aid of theory or instruction. The report of the House of Representatives, through their committee, on the presentation of an elegant national flag by Mr. Du Ponceau and manufactured in Philadelphia by Mr. Homergue, is, that "50 years ago there was scarce a pound of cotton raised in the United States and last year there was six hundred and forty thousand bags exported to England; there is nothing unreasonable in the conjecture, that a similar developement may attend American silk."

The Dayton Journal of 1831 says, a citizen of our vicinity with two boys has attended 100,000 silk worms which produced 300 lbs. of cocoons, which sold in Cincinnati for $125,00.

It is stated by the Hamilton county agricultural society, in their circular upon the culture of silk, that 4 acres of ground, planted in white mulberry trees, near Boston, have fed worms enough to produce 420 lbs. silk, worth $3 50 cts. per lb., amounting to 1470 dollars. A single tree in France has been known to yield 5 dollars on the sale of its leaves.

The Cincinnati Chronicle says, Mrs. Daniel Parker of Clermont county, has been active in introducing the mulberry tree in Miami Valley.—She raised from 50,000 worms $180 worth of silk with the assistance of her two little daughters—she is preparing to extend her operations and devote her time and talents to this business. Mr. Gideon B. Smith of Baltimore states, that a boy 11 years old, employed 32 hours and a woman 37 hours during the last season in rearing 10,000 silk worms, and that the cacoons before reeling were worth $14,00. One female and one boy may with ease take charge of 10,000 worms by devoting 40 days to them—the value of these 10,000 worms, before reeling will be worth $140,00, an amount which few females can earn in a whole year.

Poulson's Advertiser says, that 5 tons of raw silk was raised in two towns in Connecticut this year. One gentleman last year paid $1500 for white mulberry trees, which he set out on a 100 acre lot.

The sales of sewing silk in Mansfield alone this year, amount to $85,000, says the New England Farmer. The Cincinnati American says, Mr. James Smith of Bladen county, North Carolina, made 100 pounds fine sewing silk, besides the floss from 200,000 worms—which sold for $700,00—four or five negro children attended them under his inspection. These are a few of the countless facts respecting the productiveness of the silk worm.

No man delights more in being engaged in this business than myself and none can wish the cause greater prosperity. If you think these remarks worthy a place in the Tennessee Farmer, you can give them an insertion.

Your sincere friend,

NATH. G. M. SENTER.

FROM THE CULTIVATOR.

On the Beneficial Effects of Knowledge on Moral Principle and Conduct.

[CONCLUDED.]

To what has been now stated, with regard to the influence of knowledge on moral conduct, it may, perhaps be objected, that many instances occur of men of genius and learning indulging in dissolute and immoral habits, and that the higher classes of society, who have received a better education than the lower, are nearly as immoral in their conduct. In replying to such an objection we have to consider, in the first place, *what is the nature of the education such persons have received.* Most of the higher class have received a grammar-school education, and, perhaps, attended a few sessions at an academy or a university. There cannot, however, be reckoned above one in ten who pursues his studies with avidity, and enters into the spirit of the instructions communicated at such seminaries; as it is well known to every one acquainted with the general practice of such students in colleges and academies, that a goodly number of them spend their time as much in folly and dissipation, as in serious study. But, although they had acquired a competent acquaintance with the different branches to which their attention was directed, what is the amount of their acquisitions? A knowledge of the Greek and Latin Classics, and of pagan mythology, in the acquisition of which five years are generally spent at the grammar-school, and two at the university—and the elements of logic, ethics, and mathematical philosophy. But such departments of knowledge, *in the way in which they have been generally taught*, have no necessary connexion with religion and moral conduct. On the contrary, by keeping the principles of Christianity carefully out of view, and even insinuating objections against them, some professors of these sciences have promoted the cause of infidelity, and consequently impeded the progress of genuine morality. What aid can be expected

to morality from a mere grammar-school education. when the acquisition of words and phrases, and the absurd notions and impure practices connected with Roman and Grecian idolatry, form the prominent objects of attention; and when, as too frequently happens, no instructions in Christianity are communicated, and not even the forms of religion attended to in many of those seminaries? The mere acquisition of languages is not the acquisition of useful knowledge: they are, at best, but the *means* of knowledge; and although we would not discourage any one, who has it in his power, from prosecuting such studies, yet it is from other and more important branches of study that we expect assistance in the cause of moral improvement.

With regard to men of learning and genius, we have likewise to inquire into the nature and tendency of their literary pursuits, before we can ascertain that they are calculated to prevent the influence of immoral propensities and passions. Persons are designated men of learning, who have made proficiency in the knowledge of the Greek, Latin, French, German and other languages,—who are skilled in mythology, antiquities, criticisms, and metaphysics, or who are profound students in geometry, algebra, fluxions, and other branches of the mathematics. But it is easy to perceive that a man may be a profound linguist, grammarian, politician, or antiquarian, and yet not distinguished for virtuous conduct; for such departments of learning have no direct bearing upon moral principle or conduct. On the contrary, *when prosecuted exclusively, to the neglect of the more substantial parts of knowledge, and under the influence of certain opinions and prejudices*, they have a tendency to withdraw the attention from the great objects of religion, and consequently from the most powerful motives which excite to moral action. We have likewise to inquire whether such persons have made the Christian revelation one great object of their study and attention, and whether they are frequently employed in serious contemplations of the perfections of the Creator, as displayed in the economy of the universe. If such studies be altogether overlooked, we need not wonder that such characters should frequently slide into the paths of infidelity and dissipation; since they neglect an attention to those departments of knowledge which alone can guide them in the paths of rectitude. We may as soon expect to gather "grapes from thorns, or figs from thistles," as to expect pure morality from those, however high they may stand in literary acquirements, who either neglect or oppose the great truths of religion. We do not mean, however, to insinuate, that the subjects alluded to above are either trivial or unworthy of being prosecuted. On the contrary, we are fully persuaded, that there is not a subject which has ever come under human investigation, when prosecuted with proper views, and in connexion with other parts of knowledge, but may be rendered subservient, in some way or another, both to the intellectual and the moral improvement of man. But when we speak of diffusing useful knowledge among the mass of mankind, we do not so much allude to the capacity of being able to translate from one language into another, of knowing the sentiments of the ancient Greeks and Romans, and the characters and squabbles of their gods and goddesses, or to the faculty of distinguishing ancient coins, fragments of vases, or pieces of armour,—as to the facts of history, science, and revelation, particularly in their bearing upon the religious views and the moral conduct of mankind. And if the attention of the great body of the people were directed to such subjects, from proper principles and motives, and were they exhibited to their view in a lucid and interesting manner, there cannot be the smallest doubt, that the interests of virtue and of pure and undefiled religion would be thereby promoted to an extent far beyond what has ever yet been realized.—*Dick.*

General Observations on Agricultural Pursuits, and some remedies hinted at.

"Woodlands, (Ala.) 1835.

To the Editor of the Southern Agriculturist.

Dear Sir—Last month I offered a suggestion, that "the application of any product of the planter's industry, and a strict observance of a well timed system of economy, decide in a great degree, the relative value to him, of the result of his labor." Viewing this sentiment as a truth of primary importance to us all, I have been induced, from feeling occasionally its truth, to observe and reflect on the "wide spread influence" produced on the prosperity and comfort of many, even good men, from a neglect of its observance. The land may be good, well manured—judicious tending the crop—much laudable energy and industry used, and a "heavy crop" made—still like, in making an ox-bow, every thing depends on the "turn" it takes, after all is done. As regards reaping comfort, or advantage from the previous labor—a striking "commentary on the text" is frequently presented to me by two of my good neighbors, and which case, I shall offer to your intelligent readers for their consideration. The instances, I am satisfied, are not rare.

Those men are almost in similar circumstances, with a heavy charge of the "poor man's wealth." As regards property, they have each a quarter section of good land; about thirty acres cleared, they both enjoy good health, much capacity for bodily labor, and each has two children, capable of assisting them in their agricultural operations.

XUM

Each of those small planters works well, manages his crop judiciously, generally producing excellent returns for their labor, and they have received and enjoy amongst their neighbours, the reputation of industrious men and good citizens. As regards managing the things of time, and accumulating, I have discovered a singular difference in their disposition and views, and have been induced to observe the operation of this difference, somewhat closely, believing that it affords a fair case to decide on the truth of my previously adopted theory.

Amongst a great variety of striking circumstances, I have observed, that the one who goes amongst his neighbours, by the familiar title of "*Uncle John*," has uniformly every spring two stacks of excellent fodder to sell. "*Col. Billy*," as uniformly, is harrassed every spring, for the want of a stack, and his good old plough horse suffers severely from this want. Hearing this complaint from the "*Colonel*" so repeatedly, I was induced to ascertain the way in which it was brought about, and how the three stacks put up in the summer were disposed of, for he never failed to pull and cure a full share "to the hand"—rather more than "*Uncle John*." On investigating the case, in a way of delicate inquiry and observation, I discovered that the "*Colonel*" has been uniformly in the practice of having a "shucking," while Madam embraces the opportunity to get a "quilt taken down," a dance, a good deal of whiskey, much "frolic and fun," and upon the whole, it becomes a periodical row, followed by two or three days of head ache, sick stomach, indisposition to labor, and, indeed, incapacity. Several days elapse before the crib can be prepared, and the crop housed, for nobody is able or disposed to go to work next morning after the "shucking." The shucks lay in one pile, and the corn in another; the sick head-ache still continues, unless an invitation to the "Major's shucking" and dance, and quilting relieves it for a night, but not for the next day. The corn is, however, cribbed, but the shucks lay waiting for the rail pen to be built; day after day passes, rain after rain falls on them, cow after cow, and hog after hog passes over them, and at last comes, "indeed they are so much spoiled, owing to accident, that they are not now worth putting into a pen." "But thank fortune," replies the Colonel, to one of his more economical neighbours, who was remonstrating with him on the carelessness of losing such a quantity of fine winter provision for his cattle—"Thank fortune, we have made a fine chance of fodder." But this last remark was made while the season was yet mild, and the cattle done "pretty well in the woods." The cold, chilling rainy days and nights of November and December come on, and "nothing for the milk cows," "the children can't do without milk," "it won't do to let the cows suffer," "they must have some fodder," "it was a pity old man that these shucks were lost." The pleasures of the little row are long since forgotten, but the loss of the shucks, one of its consequences begins to be remembered. "The cows must have some fodder, nothing else for them," "and the calves are perishing, it won't do old man to let them perish, they must get a little fodder too, to save them." The steers were suffering—"the good pair of steers that haul wood and rails, the crop in, I don't know how we could do without them, they must get a bundle of fodder," "it would be inhuman to let them suffer while we have it." All wise and cogent reflections, but only sadly out of time and season. Had they been made, just before the shucking and row that followed, as a necessary consequence, a large pen of shucks, might, and no doubt would have been now on hand. "Bleak Boreas" don't choose, however, to wait upon our folly, or want of consideration—the winter was long and hard. By ploughing time, two stacks were gone, and one broke into. "Well I must buy a stack of fodder"—it is put off from day to day, other business pressing with the opening of spring, as is usual. At last, "Dobbin," is mounted, to "go and look for fodder," but "it is too high"—loud complaints, vexation, and Dobbin suffers—time is lost running about—hard work for "Dobbin," approaching fast—he gets his corn, and is nightly turned out to "pick grass" after a hard day's ploughing. Dobbin frequently don't choose to come up early, and the plough starts one or two hours by sun; the Colonel walks himself "to death," hunting him all the morning, and trying to make a good day's work by the night, is "tired to death," weary, and vexed, having to turn Dobbin out again, he loses the cheerfulness of a father and a husband, and tumbles into bed like a log, fretful and fretting at his misfortune of having no "ruffage for his plough horse." He concludes, "it will never do to let the plough stand still," and again goes to "hunting fodder." After consuming two days so extremely valuable to him, he buys, at a double price, and hauls it home. Here a hole is made in his little cotton crop. So much for the shucking, the quilting, the dance, the row, and the shucks being lost. Nor does "*Colonel Billy's*" misfortunes stop here.

The Colonel, in early life, conceived a strong military *penchant*, and soon determined to get, if possible, into a situation, to be ready to "fight his country's battles," with renown to himself, and glory to his country, should its enemies ever "invade its peaceful shores." From rank to rank he rose, until he honorably was elected "Colonel of the 3d Regiment;" but notwithstanding the glitter of the epauletts, and the imposing size of his sword, the mass of his acquaintance could

never admit or apply any other title to him than the familiar one of "*Colonel Billy*," for they never failed to add, he was "a good soul." This military advancement, however, brings the Colonel, although a time of profound peace, and no earthly prospect of hostilities "a power of military business to attend to," and with it a great many military visitants, and who occasionally fight some excellent battles, over a glass of excellent toddy. "Scott's military tactics," and "Vauban's Art of War," with an old family Bible, the "Pilgrim's Progress," and "Tom Thumb," with the children's Spelling book, constitute the Colonel's library; the two first being read to him in a scholarlike manner, by the schoolmaster of the neighbourhood, who visits him every Friday night for that and similar purposes. The consequence, however, amongst others, is, that the "corn goes mighty fast"—and the Colonel generally, becomes the purchaser late in the season; and this makes another vent in his little cotton crop. At this he frets and often makes loud complaints about his "bad luck," and to add to the Colonel's mortification, you sometimes see a constable's horse hitched at his gate.

"*Uncle John*," never has any shucking, no quilting, dancing or rowing. His corn is put up in the shuck, the whole shuck, no slip-shuck business with him; as he uses it, the corn is shucked; and the shucks laid carefully in one apartment of his crib. The cold, rainy, chilling nights of November and December, come to him too.—The milk-cow lows, as she approaches his gate. She is immediately put into a dry sheltered pen, and sufficiently protected from the piercing wind, and "pelting of the pitiless storm," and in a large trough, a fine basket full of fresh shucks, sprinkled with salt and water, is placed, pulled to pieces, for "*Brownie*" and "*Lady*," &c., and this injunction, added to the shucks, often and again, by the modest, pious matron, who it was John's good fortune and good sense to have secured, "think of the cow my dear children, and be good to her, for she it is, that gives you sweet milk"—"pull her shucks to pieces, that she may soon fill herself, and lay down to rest." The infant drinks in benevolence, feels its humanity roused, and gratefully returns good for good. Here is the impression stamped by a mother, that no time can efface those lessons that formed a Washington! John smiles approbation and inwardly congratulates himself on the possession of such a partner for his bosom—such a mother for his offspring—he feels a full glow of the most refined happiness. The calves, they have "some of the nicest of the shucks, my children, and some oat straw from the barn." The "good steers," they too are well supplied with the roughest of the shuck, and some tops that were saved and laid by for them. They have their warm sheltered apartment. Providing such little sources of comfort for his animals, occupies the time that the Colonel is found settling military affairs, or going to the "store" on Saturdays. John throws his corn from the carriage into the crib; economy makes it hold out; Dobbin has his reserve of fodder laid up in the "little stable loft" for winter use, and until ploughing time. The stacks stand untouched; a small neat stack of oats to be cut occasionally in the sheaf, aids Dobbin with his allowance of corn, who eats his meal in a warm stable, and lays down to a refreshing rest, "after a hard day's ploughing or riding." John sells his two stacks, when such as the Colonel is out on the hunt, and sold it is. The proceeds go to Mobile and lays in his sugar and coffee, at a low price. The proceeds of the little cotton crop go to lay up a piece of good land for a child. John frequently congratulates himself on being settled in a country, where it is "so easy to live and get along," and in speaking of him, his neighbours say, "he is a prudent, good man." Your readers will apply the sentiment with which I set out, as has been frequently done by

CINCINNATUS.

From the Farmer and Gardner.

Grasses.—Essay No. 3.

Containing an account of several satisfactory experiments made in the culture of the Ribbon Grass,* by Abednego Robinson of Portsmouth, New Hampshire.

I wish to make a few remarks on some experiments that I am making, though now in their infancy, on a species of grass here named and known as the Ribbon Grass. This early disclosure of results, as far as they have gone, is rendered the more necessary, inasmuch as I have recently seen an extract from a letter of mine in an Agricultural paper which though not intended for the public eye, found its way to the press.—To this course I have not the slightest objection; but on the contrary, will feel especially happy at all times, if what I may say should be of service to my countrymen, of letting whatever I may write be published. The circumstance to which I allude was this. I mentioned in a letter to a friend, that I had seen a patch of *Ribbon Grass*, in a very flourishing state, on a wet, boggy spot of ground, and of my full belief of its being susceptible of being very extensively and profitably cultivated, and of my intention of trying the experiment. As this has been communicated to the public and as I have had a very favorable account of it from a gentleman in Connecticut, an experienced and practical farmer, and of his determination of entering into its culture immedi-

*This grass is known by several names, as, Ribbon Grass, Puzzle Grass, and Fancy Grass.

ately, I deem it proper that I should make known my own experiments and opinion of this grass, believing as I do that it will prove a most valuable acquisition to the cultivated grasses, and a great blessing to the people of the South in particular.

A neighbor of mine, [Capt. John Simpson, living in Greenland,] knowing I had made some experiments on Grasses, observed to me that he had a patch of Ribbon Grass on a springy, boggy piece of ground, which it was worth my while to see. It was his belief, from its luxuriant growth in the *bog* and the circumstance of its expelling all other grasses, taking full possession of the soil, and affording two full crops in the season, and from the fact *that all kinds of stock were very fond of it, that it might be cultivated to great advantage.* This excited my curiosity, and I soon called on the gentleman to satisfy it, and was surprised at the beauty and richness of the grass. It grew on a bog, at a small distance from a living spring, where the water descended and spread through the grass all the season. The appearance of the neighboring grass in the same situation, was very ordinary, being thin, flat-leafed, short, and nearly worthless,—whereas the *Ribbon Grass*, in every particular, wore the most beautiful appearance of any grass I had ever beheld. It was then in its vigor, and in full bloom, every leaf being expanded, wide and thick, so that the eye could not penetrate through it. Each leaf has one or more stripes lengthwise, differing, on close scrutiny, from each other, either in the number of stripes, or their form or shade. This grass averaged about four feet in height, and stood perfectly erect. It is possessed of a fine solid stalk, having an inviting and luscious appearance as fodder. I took a clean lock of it, and another of Herds' Grass, and offered them both together to my horse, and found him quite as fond of the *Ribbon* as of the *Herds' Grass.**—Captain Simpson states that he has observed that his stock were more fond of it than of his best hay of other kinds. This patch would amount to about one square rod.

I engaged the seed, not knowing what it produced, having never particularly observed the grass before; I accordingly applied at the proper time as was supposed, and reaped the heads, but was able to discover but very few seeds, from 1 to 3 to the head. Being certain that we were full early, a part was suffered to remain till later in the season—when by a re-examination it was found in the same condition. I beat and rubbed out the chaff; but could discover only a few small seeds. I sowed it in good season, with the greatest care, in my garden, hoping that in the chaff, there was more than what I could discover, which would vegetate. I sowed it in drills, to be sure to have it well covered, and that I should not mistake other grasses for it. There appeared to come up a few white blades, which I supposed to be young ribbon grass; these few, however, dwindled off one by one, till all disappeared, the ground never having been disturbed since, and I have not one plant to show from these seeds.—Hence I conclude it *cannot be propagated from the seed.*

Having a very favorable opinion of the grass, I looked for some way to propagate it, and concluding that it might be propagated from the *root*, as hops and many vegetables are, I accordingly engaged one half of the patch, to take it in the spring. I prepared my ground (40 rods) by ploughing in my low ground in the fall, the ground varying from soft to very soft mud. The spring being wet, the ground uncommonly soft and muddy, I postponed the setting of it out, I think, till June, when I went for my waggon load of turf, the grass was then from four to eight inches long. Early in the spring it had had a dead appearance, but at this time it had become pretty well sprung up; some old stubs were dead. Perhaps this situation was one of the most trying of any to be found. It grew where ice made to a great thickness from the water spraying from the spring all the year. Mr Simpson has informed me since I took away one half of his turf of Ribbon Grass, that it sprung immediately up in the same place, and produced a crop, quite as good as before. Since his closer observations, he says he esteems the grass more highly than at first.

The manner in which this grass was planted in the bog, was this. He had a tuft of it growing for ornament in his garden, in a very rich soil; which he occasionally ploughed, and finding the ribbon grass spread a little too far, he ploughed off some of the roots, gathered them and threw them into the bog; he found they took root, spread and flourished as I have stated. I observed when getting my grass, there were some low spots *covered with water*, where the grass sprung up *stronger* and *larger*, being apparently more in its element.—Capt. Simpson's garden is of the richest soil among us; yet it is evident that one rod of the bog will produce as much as four in his garden.—Immediately after getting home with my turf, I commenced chopping it up, taking care to divide the tufts according to the stalks, leaving from one to three in each piece, chopping them with a sharp spade, into pieces, from one to four inches square, setting out about 40 square rods, about two feet apart, without any manure; and setting a few for experiments, in the middle furrow where the water was constantly issuing nearly all the season.—None of them failed of living, and all have taken root, shot out and spread considerably; some few

*Mr. Robinson means timothy, that being the name by which it is designated to the eastward.

to meet each other. Those in the dead furrow appear every way as thrifty as those on the bed. I had the curiosity to try the experiment by sticking one stalk of this grass without root in the mud, where the water continued to issue; it appeared to grow as well as those with the root; and shot out with branches. This method of propagation is more facile than from the root. I pressed several tufts into holes in a bog where the water would rise to the top of the tufts, (this is among fresh grass;) here it shot out and appears in its element, and will in all probability spread and drive away all the other grasses. I also sunk some into what is called a quagmire, where it is so soft as not to bear a cat; here I sunk the tufts level with the water; these have the appearance of being perfectly in their element. All these I have lately surveyed since our severe cold, and those in the wettest places appear least affected. I set some of them out on some of the most barren soil, under a forest of white oaks, where nothing of consequence will grow; they all live there, and will probably produce something, perhaps one ton to the acre; if it will do this on very barren lands, it may be well to cover them over with it. I have set it in my front yard and in my garden, on warm soil of tolerable quality, bordering on common grass, in part for ornament. A portion of this was manured and hoed; here it is perceivable that the higher the culture the greater the product as it respects high ground. It is demonstrated from my experiments, and Captain Simpson's discovery, that this grass is truly *amphibious*. It will do well on *high dry lands*, and it will thrive in a *bog* or even in *water*. I do not know how deep a water it will grow in, but I presume it will grow in shoal, especially *running water*. Is it not evident that this grass possesses very valuable properties, and must prove superior to most other grasses?—Yes, for it not only grows luxuriantly and in abundance in a *quagmire* where nothing of any value has ever been known to be produced before, but its roots are of such a tough nature, that a sward is soon produced that will bear a cart and oxen to pass over it. It has another good quality:—although the circumstance of this grass not producing seed for propagation, seems at first view to lessen its value—yet when we consider the evils resulting from many troublesome grasses that spread from seed, and that no limits can be set them, we may, with propriety, esteem it a virtue in this fast-rooted grass, that limits can be set to it, that our valuable tillage ground may never be impeded with its roots, and that our waste and unproductive bogs may be easily changed to the most productive portions of our farms. As to what *Ribbon Grass* will do in pasture, I know nothing. I have my doubts whether it will succeed as I think it is not thick and downy enough, to bear repeated trampling and cropping close to the ground. It is possible, however, from its hardiness, wherever it has been known by me, that it may endure the hardship of being pastured; if so, I have a right to conclude from all its other properties, that it will prove far more valuable than any species of grass yet introduced into culture (the Gama not yet being fully known) and if any farmers at the North or South, have waste bogs that are eye-sores within their enclosures, let them try the experiment of the culture of this Grass; it will not be costly even if they should not succeed.

ABEDNEGO ROBINSON,
Of Portsmouth, N. H.

From the Genesee Farmer.

On the Cultivation of Wheat.

The following paper on the cultivation of wheat, was read before the Agricultural Society of this State at its meeting in February last, by H. Hickock, Esq. of Rensselaer county:

There are two causes which, when our winters are open, operate injuriously on wheat crops.—One is, the high and dry winds, which prevail in March; these blow off the soil in many situations, and by leaving the roots of wheat exposed, occasion their destruction. Another cause, is the heaving of the soil, occasioned by the alternations of cold and warm weather. The water in the soil, in the act of freezing, expands and raises up the earth, and also the roots of the wheat plants which the earth embraces when a thaw succeeds, the earth being heaviest, falls down first and leaves the roots of the wheat a little elevated, and by repeated changes of the weather, the roots are so far thrown out as to perish.

Farmers, when convenient, usually sow their winter grain early in September, upon a supposition which guides their common practice, that grain thus early sown withstands best the action of unfavorable seasons. This supposition, is founded upon the very plausible theory, that as the oldest roots will be longer and more numerous and take a firmer hold of the soil than those which are younger, they will be less exposed to be thrown above it, and at the same time from their strength, be more tenacious of life. But experience informs us, that wheat, sown as late as the first or even the second week in October, very often survives with less injury than that which is sown in the early part of September.—Indeed farmers very generally admit, as the result of their experience, that rye whose laws of vegetation must be nearly the same as those of wheat, sown so late in the season as barley, to come up, is most likely to withstand an unfavorable winter. Still the very plausible theory, which has been mentioned, very generally induces them to sow rye early as well as wheat, in

direct opposition to conclusions, which have been drawn from actual observation.

An experiment was made last autumn for the purpose of collecting some further information on this subject. On the first day of September last, I excavated a spot of ground six feet square. On the one side, the excavation was about six inches deep; on the opposite side, its depth did not exceed one inch. Seed wheat was placed over the bottom, so that the kernels were about four inches distant from each other, the excavation was then filled up. The soil was a suitable mixture of gravel, sand and clay, for wheat, and of ordinary fertility. This was the latter part of the extreme drought which prevailed last summer, and the soil was dry, warm and finely pulverized before it was thrown on the wheat. The circumstances, except the extreme dryness of the soil, were highly favorable to the vegetation of seed at the greatest depth in the earth. On the fourth of the month there was a heavy shower, which not only wet the soil, but beat it down close and hard.—On the ninth of the month, the plants began to show themselves; but none come up from a greater depth than about three and one-half inches. Two or three days after the second leaf had displayed itself, some of the roots were taken up and examined. It now appeared that nearly an inch below the surface of the ground, a new joint was found which was the basis of the second leaf, and also of a new system of roots.—There were now two tiers of roots; the seed or knot adjoining it had generated the lower tier, and the new joint the upper one. These two tiers or systems of roots were connected together by a root resembling a cord or thread, and in one instance, I cut off this connecting thread, and transplanted the upper part. This grew with little apparent check from its curtailment; but the under part died, although the soil above it was opened so as to afford it the advantages of air and solar heat. On the 20th day of September, I examined another plant, which had its regular formations as expected, and, what was not expected, a blade was discovered about an inch long, which had started from the lower system of roots and would doubtless have found its way to the surface, had it not been disturbed. It is to be remarked, that this plant sprung from seed placed under cover of nearly four inches of soil, which was about an inch deeper than any of the other plants examined, and that some of the tops of the wheat plants had been eaten off and trodden down by accidental intrusion; a fact unregarded at the time. On the 26th day of September I examined another root, expecting to see the blade from below more perfectly developed; none however was discovered; but a third tier of roots was found at the surface of the ground, which proceeded from the second as that had from the first system of roots. On the 16th day of October I placed some seed wheat about two inches in the ground; their delay in coming up induced me to suppose that they had perished from cold and wetness; but at the expiration of three weeks they made their appearance, and although the ground remained open several weeks longer, no second leaf appeared, of course no joint or second system of roots had been formed. The very different formations in the roots of wheat, which this experiment has disclosed, proceeded from causes appropriate and capable of being ascertained, but to distinguish them with certainty, other trials must be made and conducted with greater accuracy than the one of which an account has been given.

From these experiments, though inaccurate, some conclusions may perhaps be drawn of practical use. All plants which live over winter, possess an apparatus, by which they supply themselves, in autumn, with food for their sustenance in spring. This food consists mostly of saccharine matter, which is enclosed in a proper receptacle. When this receptacle is formed near the surface of the earth, the fermentation of its contents is excited by frequent changes of weather, the saccharine matter is decomposed, and the plant perishes from the want of food, and perhaps also from a rupture of its vessels.

All wheat, shallow-sowed, must have its reservoirs of food but slightly covered with soil, and of course they are fully exposed. When wheat is sown early at any depth, a second, and sometimes a third system of roots is formed within an inch of the surface. In these, many stems originate, each of which has its receptacle of nourishment at its base, and it is quite certain that in most instances, the food, which was contained in the seed and the adjoining knot is entirely exhausted by the supplies of nourishment it affords the upper portions of the plant. The life of early sown wheat must then, like that which is shallow sowed, depend upon the preservation of the reservoirs of saccharine matter which are placed at or near the surface of the ground, and of course exposed to the unfavorable action of variable weather during winter.

Wheat which is late sowed, generates no second blade or new system of roots, and of course, the nourishment for spring's use is retained in the receptacle which adjoins the seed. If then we sow sufficiently late in autumn, and place the seed deep in the soil, we shall provide every security against the hazards of bad weather which the nature of the case admits of.

In the ordinary course of husbandry, some of the wheat is necessarily deposited at considerable depth in the soil, and when this takes

place sufficiently late in the season, the receptacle of food will be protected by its covering of earth and a partial crop will often be realized although there may be, when the spring opens, no signs of life on the surface of the field. In such cases as the destruction of the blade, which issues from the seed-roots in autumn can be of little importance, one would suppose that the surviving plants will grow the more vigorously, from their being less in number, and by tillering produce many stems with large well filled ears; such, however is not the fact; usually the stems are single and the heads are not large. To account for this, it must be recollected, that after the ground has thawed in the spring, the earth settles and often becomes so extremely hard that doubtless many plants die, in their struggle to overcome the opposing resistance, and the surprise is, that any one should possess vigor enough to protrude even a single stem through the hard earth that covers it.

From this view of the subject, the practice may be recommended, of effectually harrowing the field in the spring after the ground has settled, in order to supply the plant with fresh air, and give a free passage to its upward growth. After the harrow has been used, the roller ought to be employed to reset such roots as have been displaced and diminish the evaporation of moisture.

In England, a wheat plant has been taken up, separated into eighteen parts and replanted, and by successive divisions and replantations, a crop of three and one-third pecks of wheat was obtained in less than eighteen months from the time the seed was sown. If the roots of wheat can be so minutely divided and successfully replanted, there is little danger that the freest use of the harrow can be injurious, provided the roller be also used. The fact appears to be, that nothing is necessary to the vernal growth of the plant, but the preservation of the apparatus which contains the saccharine matter, which is its proper vernal food; so that if the roots and top be cut off, and the bulb be planted in a genial soil, the plant will grow.

Notwithstanding the arguments which have been urged in favor of sowing wheat late, it must be conceded that when early sown, and our fields are cultivated in the usual manner, it produces the largest crop, if it survive the cold season. Whether such improvements may not be made as to combine the benefits of a sure and large crop, is a question still open to investigation; the probability is, that both advantages may be secured, by a more correct knowledge of the proper time to sow, and of the best methods of culture.

In the first volume of the transactions of the society for the promotion of agriculture, arts and manufactures, instituted in the state of New-York, it is stated that in Huntington, Suffolk county, fifty-two bushels of wheat had been raised by manure on an acre of land, and Mr. Downs is said to have raised, on a poor, gravelly, dry soil, by the use of fish as a manure, at the rate of 128 bushels of rye per acre. In this case, the rye would doubtless have lodged and been of little value, were it not that it was twice eaten off by his neighbors' sheep which broke into the lot; once when the rye was 9 inches high, and again when it was about 6 inches high.

The production of so large a crop of wheat and of rye must have proceeded from causes which are steady and uniform in their operations, and if all the circumstances which had occurred to produce them had been distinguished and noted down, similar crops might have been again raised. Some things which occurred during the cultivation of this rye crop may be ascribed to accident or chance, so far as Mr. Down's sagacity was concerned, but the causes which proximately occasioned the crop, did not work by accident or by chance, but agreeably to the laws or rules from which they never deviate. This uniformity of operation lays the foundation for making future discoveries, and brings within the grasp of our faculties the knowledge of increasing our crops by methods the least laborious and expensive.

The period may arrive when the farmer shall pursue his methods of culture with an anticipation of the consequences which will result, analagous to that of the mechanician in the construction of a machine, and when, by direct means, he shall produce greater crops than ever were obtained by mere empirical trials.

Time was when the greatest philosophers taught the doctrine, that all things pertaining to the surface of the earth were too irregular and too much under the government of chance, to admit of scientific inquiry; this error has, within the two last centuries been dispelled. But a similar error, in regard to rural affairs, is embraced by almost all our practical farmers, and the task of correcting and exposing it is devolved, it would seem, upon the unaided efforts of a few individuals. Here then is the difficulty.

Clover Manure for Wheat.

From the Hagerstown Torch Light.

The wheat crop is the most important of all crops to the farmer. A man who has one hundred acres of cleared land of common quality ought to raise on an average, *one thousand bushels of merchantable wheat*, and rye, corn, oats and potatoes sufficent

to defray the expenses of carrying on the farming. The wheat crop should always be *clear gain.*

Don't startle at this, farmer. A man who has a farm of one hundred acres of cleared land can yearly put forty acres of it in wheat? and if the land be in order as it should be, and as every farmer may have it, every acre of the forty will give twenty-five bushels, amounting altogether to one thousand bushels. I shall now show how land must be farmed, in order to produce in this way. Never break your land before harvest and stir it after, as is customary with many farmers. Much ploughing impoverishes land, and is productive of no good effects. Your wheat ground must be heavily set in clover, and broken up after harvest with three horses, when the seed in the clover is ripe. By thus turning clover down after harvest, when the seed is ripe, it will never miss coming up in the spring, which is frequently the case when sown in the spring with seed. You also save between forty and fifty dollars worth of seed annually, which it would take to sow your ground. When the clover is ploughed down after harvest, before you seed the field, harrow it lightly the way you have ploughed it, in order to level the ground, and prevent seed from rolling between the furrows, and coming up in rows. Never plough your seed in with shovels, nor harrow it across the ploughing, when you have turned down clover after harvest, lest you raise the clover, but always harrow it in by twice harrowing with light harrows the way you have broken up your ground. Many farmers have ploughed down clover once, and finding that the crop was not bettered by it, but injured as they believed. have never attempted it again. This is almost invariably the case the first time clover is ploughed down after harvest, especially if the fall be dry and the winter frigid and close. In turning clover down you must necessarily plough the ground deep, and the first time you turn up the clay, which being unmixed with manure of any sort on the top, is in a bad state to sow wheat on. The wheat after some time will sprout and come up, but will look yellow and very spindling. Its roots after some time will get down among the unrotted clover, and there will choke, and for want of moisture a great deal of wheat will dwindle away and die. The unrotted clover below will keep the ground wet and springy, so that the frost will injure the wheat not a little. But when the clover is twice ploughed down, the bad effects to the wheat crop arising from unrotted clover are not experienced. You then turn up the clover from below, which was ploughed down before and which is a manure on the top. The seed sown on it now springs up directly, and before winter sets in has taken deep root. The clover now turned down rots very soon. in consequence of the rotten clover turned up, which as manure always keeps the ground moist, however dry the fall. You may now go on farming in this way; every time you turn up a coat of clover turn down one, and your wheat crop will never fail, until your land becomes so rich that you will have to reduce it with corn.

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I was pleased with the above suggestion, and I think it worthy the consideration of the farmer. We all know the fertilizing properties of clover, and that when mixed with the soil it is extremely congenial to the growth of wheat and corn. A good coat of it well ploughed in, is better calculated to give an ample yield than a covering of stable yard manure. Its large, rank and thick growth is likewise extremely beneficial to a succeeding crop in another point of view. It occupies the whole surface of the ground, and prevents the grasses and weeds from growing, so that clover well turned in leaves the ground clear and unoccupied by the roots of other plants which interfere with the growth of wheat. In this respect wheat is a remarkable plant, it will not thrive intermixed with any thing else; it must occupy the ground alone. But whether ripe clover ploughed in would seed the ground so as to give a succeeding crop of it, I will not undertake to give an opinion.

A.

Columbia Sentinel.

Manure is Wealth.

From the New York Farmer.

In our intercourse with some of the farmers residing within forty or fifty miles from New York, on Long Island, we have been surprised at the instances related to us of the profitableness of farming. Some far-

mers, known to have labored and toiled hard, have continued yearly to fall in arrears until they have commenced buying manure. Fifty-six cents are given per cart man load at the landing, for the apparently worthless dirt swept from the street. This applied at the rate of twenty loads produces wealth. The very farmers who could not obtain a living by using only manure made on their farms, have, in a very few years not only freed their farms from incumbrances, but purchased others in addition, and are now, from the yearly profits of their farms, putting money out at interest. If then it is found so profitable to buy manure, &c. at the various expenses attending the carting, how very important is it to give special attention to increasing the quantity and improving the quality of that made on the farm. There is no question but that almost every farmer can double the quantity of his domestic or yard manure, without scarcely any additional expense. It is thought too, that at least fifty per cent. of the nutritive properties of yard manure are lost by drenching of rain, excessive fermentations, and injudicious application to soil. The more we consider this subject the greater does it become in importance, and justly regarded as the primary object in farming.

From Fessenden's Silk Manual.

Facts and observations relative to the Culture of Silk.

SILK MANUFACTURERS.

The first steps in the manufacture of silk are within the farmers immediate department, viz. to sow the mulberry seed, and rear the young trees; and after two years of attendance, the raising of silk may commence in good earnest, and will become a pleasant and healthy business for children and young women. This rich crop will require but two months' care to secure it, and when the business shall flourish on a large scale, which we hope will ere long take place, the raising of the mulberry trees, feeding the silk worms, and the manufacturing of the cocoons will be considered as much a part of good husbandry, as the rearing of neat cattle, sheep, &c. Silk worms will become a part of a farmer's stock, and cocoons his produce as commonly sent to market as butter, cheese, &c.—The winding and reeling of cocoons may or may not be performed in the family and by the fireside, as the cultivator's help or circumstances may admit; but the cocoons will be as much cash articles as beef, corn or cotton.

Great advantages will accrue to the younger members of farmer's families from silk culture. Farmers' daughter's in limited circumstances, but of respectable standing and connexions may find a profitable and pleasant employment at home, instead of being compelled by penury to seek an asylum from want in cotton factories, or the kitchens of their more wealthy neighbors. Poor people may find profitable employment, rich people innocent and pleasant amusement in the different branches of the same occupation. Some of the processes necessary for converting the mulberry leaves into the multifarious manufactures in which silk forms the whole or an important part, may be performed by a child or an idiot. Other manipulations connected with the same business require consummate skill, and long practice to insure their proper performance. Ignorance of an art can be no apology for idleness when knowledge is not necessary for its prosecution; and every human being of every grade of intellect, or strength, mental or corporeal power, if not an infant, insane or bed-ridden, may find something connected with silk culture adapted to his or her faculties, and calculated to furnish useful employment.

The mechanical part of reeling silk in France and Italy is performed entirely by women. There are in those countries what are called great and small filatures. The former are large establishments, in which from 50 to 500 reels are at work; the women employed there are under the superintendence of a director, who is thoroughly acquainted with the mechanical as well as the mercantile part of the business.—These directors are brought up to the profession. The women employed in these large filatures are well paid, and generally remain there till the end of their days.—The small, or as we should call them domestic filatures, are carried on in families by the farmers' wives and daughters, who work from one to five reels, with cocoons of their own raising, or those they purchase of their neighbors, by which they make a handsome income at the end of the year.

Those women in general have preserved the art in the families from generation to generation. The silk from domestic reels is not as perfect as that which comes from the large filatures. It sells, however, and the manufacturers know how to employ it. It must be added, that the French and Italian female reelers perform their work mechanically, and are, in other respects, grossly ignorant: few of them, if any, knowing even how to read and write. Our American women will prove themselves far superior in every respect, and their domestic filatures will produce perfect silk, because they will not have received instruction through their great-grand-mothers, before the art was improved as it is now.

In this country there should be both great and small or domestic filatures;—the former will be the depositories of all the improvements in the art: the latter will contribute to the use of families, and there is no danger of their being an excess of the article in the market. There must be filatures of all sizes and dimensions, according to the means of those who undertake them. Full and free competition can alone ensure success.

BENE PLANT—(SESAMUM ORIENTALE.)

To the Editor of the Southern Agriculturist.

"WALNUT GROVE, District of Orangeburg, July 7, 1835.

Dear Sir—The leaves of the Bene Plant, (*Sesamum orientale*) soaked in water for the space of one hour, afford a rich and bland mucilage equal if not superior to gum arabic. This mucilage sweetened with loaf sugar and taken in small doses, has been found efficacious in allaying the troublesome cough and wasting diarrhea in *Phthisis Pulmonalis*, or Pulmonary Consumption. Having witnessed its soothing effects in a very advanced stage of this formidable disease, I can, with confidence, recommend it. Simplicity is not among the least of its recommendations, I rather think it ought to be its greatest.

Very respectfully, dear Sir, your friend and fellow-citizen,

MEDICO BOTANICUS.

CLOTHES LINE.

The clothes line we saw had been six years in use, without sensible injury, though it had remained all this time in the open air. It had always been wound up upon a small windlass, as soon as the clothes had been taken from it, where it was protected from the rain by a roof. Several posts, with notches near their tops, were placed in a range upon the grass plat, upon which the line could be drawn and fastened in two minutes, and from which it could be loosened and wound up in as short a time. It is but a small affair, but such small affairs make a large aggregate in ordinary life. "Take care of the cents, and the dollars will take care of themselves."—*Cultivator.*

Cotton, &c.

The quantity of Cotton consumed in the U. States is about 200,000 bales, and the value of these, when manufactured, is more than forty millions of dollars.

The Wool crop of the present year was probably worth twenty five millions; and, as a general calculation, of its manufactures, about fifty millions.

The manufactures of Leather and Iron, (not including the common smithwork, as to the latter) are worth not less than eighty millions a year.

A new business is making rapid strides to importance, the manufacture of silk.—This, it is said, will be, in five years or less, worth from ten to twenty millions a year, and give a profitable employment to vast numbers of women and children at their own homes. *Nat. Int.*

Berkeley Land.

MARTINSBURG, VA. Aug. 20, 1835.

We omitted to notice in our paper of last week, a sale of land that furnishes irresistible evidence of the prosperity of the agriculturists, and of the enhancement of the value of our lands, caused by the increased facilities of transportation thrown around us by means of the canal and railroad.

A farm of about 150 acres, totally destitute of water and almost destitute of improvements, belonging to Keesecker's heirs, was sold at public auction on Monday, the 10th inst., at FIFTY-TWO DOLLARS PER ACRE. The land lies near the canal adjoining Alexander Stephen and others, where the benefits of the great public work are first felt, and, as the result indicates, first appreciated. Farmers in that region by means of the canal and rail road, have a market brought to their doors, at which every surplus produce of

their land can be disposed of at city prices bating the trifling sum now demanded for transportation. *Gazette.*

TO HOUSEWIVES.

In this day of improvements few have been suggested of more importance, especially to females, than the new mode of Washing Clothes which has recently been introduced into this town (Newburyport) through the agency of two benevolent individuals now residing at a distance from us. It has been tried by quite a number of families with complete success, and those who have tried it are desirous of communicating it extensively that others may reap the same benefit which has accrued to them. It is to be used only for white clothes. It does not answer the purpose in case of calicoes and woolens.

1. *Mixture.* Five gallons soft water, add a half-gallon of lime-water, a pint and a half of soft soap, or a pound of hard soap, and two ounces sub carbonate of soda.

2. *Method of Washing.* Soak the clothes over night if very dirty, at any rate wet them thoroughly before putting them into the mixture. When the above mixture is at boiling heat put in the clothes that have been soaked or wet, merely rubbing such parts with a little soap as are unusually soiled Boil them *one hour.* They are then to be taken out and drained, and thoroughly rinsed in warm water, then in the indigo water as usual, and they are fit for drying. The lime-water may be prepared and kept on hand—the soda sub carbonate, (be sure to get the right kind) may be procured cheap, by purchasing it in a large quantity. Let all who feel that *washing day* is a day of hard work and weariness, cease to complain, until they are willing to try this safe, easy and expeditious mode of lightening their burthens.—*Essex North Register.*

QUERIES.

A correspondent and subscriber proposes the following Queries, to which we request, that some of our readers, who may possess the requisite information, will furnish replies. If any agriculturist, possessing the knowledge sought to be obtained, will, through indolence or from any other cause, refuse to communicate it, how can he expect, that others will be willing to afford to him that information of which he may be destitute, and from the want of which he may be annually, perhaps daily, subjected to much loss & inconvenience? If therefore, benevolence, triotism, and that desire to promote the improvement of their profession, and to aid their fellow laborers, which ought, above all others, to distinguish the professors of the noble science of agriculture, shall be insufficient to dispose any of our readers who may possess it, to communicate the information desired, self-interest alone should prompt them to do so, unless, indeed, they shall be vain enough to believe themselves perfect masters of their profession, and therefore incapable of being benefitted by the information of others—a pretension, which we imagine, few will be disposed to make, except those who are too ignorant to be capable of benefitting themselves or others, either by the acquisition, or by the communication of knowledge.

Query 1st. What is the best and most effectual mode of destroying moles in gardens?

2d. What is the best remedy against the ravages of the Cut Worm in corn?

3d. What quality is it, which gives to the various species of wood, their different degrees of durability?

NOTICE.

As almost every new subscriber requests to be furnished with all the preceding numbers, and as the surplus copies of the 1st, 2d and 3d numbers have been exhausted, the editor is now engaged in reprinting them, and when completed, which will be in the course of a few weeks, they will be forwarded to subscribers to whom they have not yet been sent. As heretofore promised, an improved copy of the first Number will be furnished to each subscriber in lieu of the one heretofore sent, without charge. The number of reprinted copies will only be equal to the number of copies of the succeeding numbers now on hand; which, not being very large, will probably soon be exhausted. All persons, therefore, wishing to obtain a complete copy of the first volume of the Tennessee Farmer, should speedily apply, otherwise it may be out of the power of the Editor to supply them, as it is not probable that the demand will be such as to justify him in incurring the expense of reprinting the whole volume. The improved appearance of the 9th and 10th numbers induces the Editor to hope that he will be able hereafter to present the Farmer to his patrons in a somewhat improved form, so far at least as respects its typograghical appearance, and he indulges a sanguine expectation that the period is not remote when the patronage of the work will be so far extended is to enable him by employing an assistant to devote a much larger portion of his time to the preparation of its matter than it is possible for him now to do. In that event, he indulges a confident expectation of being able in no inconsiderable degree to enhance the intrinsic value of the work.

Additional agents for the Farmer.

Maj. H B. Donald, Carthage, Smith cty. W. T.
Nath'l G. Senter, Mill's Point, Kentucky.

***Contents of the Farmer*—NO. 10.**

Address to the Friends of Agriculture—Notice of the progress of the Silk Culture—Original Communication on Silk Culture—On the Beneficial Effects of Knowledge on Moral Principle and Conduct, (concluded)—General Observations on Agricultural Pursuits, and some remedies hinted at—Grasses, Essay No. 3—On the Cultivation of Wheat—Clover Manure for Wheat—Manure is Wealth—Facts and Observations relative to the Culture of Silk—Bene Plant, (Sesamum Orientale)—Clothes Line—Cotton, &c.—Berkeley Land—To House Wives—Queries—Editorial Notice—Additional List of Agents.

Job Printing neatly executed at this Office.